



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
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ANN ARBOR, MICHIGAN 48105-2498

OFFICE OF
AIR AND RADIATION

October 8, 2018

CD-18-10 (LDV/LDT/HDV/ICI/LIMO)

SUBJECT: Compliance Preview Meeting

Dear Manufacturer:

This letter provides manufacturers with an updated list of topics EPA would like to discuss in the annual compliance preview meeting, regarding your certification, Greenhouse Gas (GHG) Compliance, in-use compliance and fuel economy plans. This letter is applicable to the 2020 and later model years and supersedes EPA guidance letter CCD-03-12, October 6, 2003. This letter contains minimal changes to the DRAFT guidance letter which was provided to the industry on May 17, 2018.

At your convenience, please contact your EPA certification representative to schedule a date for this meeting or conference call. Discussion topics will include your compliance plans for the upcoming model year and any new product offerings and/or technologies you may be intending to produce in the model year which may affect criteria pollutant or GHG emissions. Enclosure I contains a detailed list of the topics we would like you to discuss.

Please submit a written response to the items contained in Enclosures I and II. If you have already had a 2020 preview meeting with EPA, please schedule another brief meeting (or send a written response) to address or update any topics that were not covered in the first meeting.

We look forward to meeting with you and if you have any questions, please contact your certification representative.

Sincerely,

A handwritten signature in black ink, appearing to read "Byron Bunker", is positioned above the typed name.

Byron Bunker, Director
Compliance Division
Office of Transportation and Air Quality

Enclosures

**ENCLOSURE 1
to CD-18-10**

**Discussion Topics for the Annual Certification Preview Meeting for Light-Duty
and Heavy-Duty Vehicles (chassis dynamometer certified)**

1. Structure of your Organization

- 1.1 Provide an overview of your organization detailing the functions and staff responsible for certification, fuel economy and in-use programs. Please include the telephone numbers and email addresses of your staff who EPA may need to contact.

2. Product Line Plans for the Upcoming Model Year

- 2.1 Detail your product plans for the upcoming model year to include information regarding any new criteria pollutant or GHG emission control technologies, car lines, engines, transmissions, fuel economy improvements and/or any other technology that may be introduced.
- 2.2 Will you certify any new sport utility vehicles, mini-vans, or non-conventional trucks (e.g., passenger-oriented pick-ups with a small cargo bed) that have not been previously certified? Detail your reasoning for certifying any of these as light-duty vehicles, light-duty trucks or heavy-duty trucks within the definitions contained in 40CFR 86.1803-01 and 40 CFR 600.002.

3. Certification Issues

- 3.1 Describe your light-duty vehicles, light-duty trucks, and heavy-duty trucks (chassis dynamometer) testing and certification plans including products scheduled for early certification and identify any critical dates related to them. Provide your Test Waiver Request plans using the table in Enclosure II or a similar table.
- 3.2 Exhaust Emissions - Provide an overview of your certification program for the upcoming model year including heavy-duty chassis certified vehicles. Include a table of your product line containing model name, test group, durability group, evaporative family, engine, transmission, vehicle class, type of EDV testing (new or carryover), Federal/California exhaust emission standards (including FTP, SFTP, PM standards, and any alternate N₂O and/or CH₄ standards, if applicable), sales area and projected sales. Please provide the total number of test groups and the number of carryover test groups expected for the upcoming model year.
- 3.3 Evaporative Emissions - Provide an overview of your certification program including heavy-duty chassis certified vehicles. Include an evaporative information table, similar to the exhaust table outlined in item 3.2 (above) but listing the Federal/California evaporative emission standards (including Tier 3/LEV-III standards), ORVR testing (new or carryover), bleed test compliance and leak test compliance. Please provide the total number of evaporative families and the number of carryover evaporative families expected for the upcoming model year.
- 3.4 Durability Program - Provide an overview of your durability program and report on the status of any new durability demonstration programs. Please highlight any changes that were made to your durability program in the last year and the reason for those changes. As outlined in Section 6 below, provide an overview of the in-use test programs conducted in the past year. Explain why you believe the in-use data in Section 6:

- supports your current durability program (without any changes) or
- indicates that adjustments are needed to your durability program.

As outlined in Section 6, you may provide this information and the information in Section 6 in a separate meeting.

3.5 Compliance with Tier 3 Standards - Summarize your phase-in plans for Tier 3 compliance for the upcoming model year as outlined below. If possible, please provide the projected sales information requested below. If projected sales information are not provided, please provide (at a minimum) a viable plan that demonstrates compliance to each Tier 3 phase-in requirement outlined below.

3.5.1 Fleet average FTP (NMOG + NO_x) LDV/LDT1 compliance plan for the upcoming model year---including your phase-in plan, projected sales by test group (if possible), list of interim & final Tier 3 test groups (including test fuel used for each test group), projected fleet average NMOG + NO_x value, and the EPA requirement (the fleet average standard);

3.5.2 Fleet average FTP (NMOG + NO_x) LDT2/HLDT/MDPV compliance plan for the upcoming model year, ---including your phase-in plan, projected sales by test group, list of Interim & final Tier 3 test groups (including test fuel used for each test group) (if possible), projected fleet average NMOG + NO_x value, and the EPA requirement (the fleet average standard);

3.5.3 SFTP compliance plan for the upcoming model year for all LDV/LDT/MDPV classes of vehicles, including your phase-in plan, test group FEL's, projected sales (if possible), projected fleet average composite NMOG+NO_x value, and the applicable declining fleet average SFTP standard;

3.5.4 Fleet average FTP (NMOG + NO_x) HDV Class 2b/3 compliance plan for the upcoming model year---including your phase-in plan, projected sales by test group (if possible), list of interim & final Tier 3 test groups (including test fuel used for each test group), projected fleet average NMOG + NO_x value, and the EPA requirement (the fleet average standard);

3.5.5 Tier 3 evaporative percent phase-in compliance plan for the upcoming model year for all evaporative and ORVR test procedures using E10 test fuel and the EPA phase-in requirement;

3.5.6 Tier 3 (diurnal plus hot soak) fleet average evaporative compliance plan for the upcoming model year, including the projected sales by evaporative family, the Tier 3 fleet average emission value for each of the four classes of vehicles (LDV/LDT1, LDT2, HLDT, HDV) and the EPA requirement for each vehicle class. Show how the fleet average (diurnal plus hot soak) value is calculated for the upcoming model year for each vehicle class using projected sales and FELs for each Tier 3 evaporative family;

3.5.7 Tier 3 PM phase-in plan for light-duty and heavy-duty vehicles and the EPA requirement for each year. Show how the phase-in percent was calculated by providing projected sales for each Tier 3 and non-Tier 3 test group;

3.5.8 Tier 3 OBD Requirements: List the test groups that will comply with .020-inch evaporative leak detection requirements. List the test groups that will comply with the 750 mile criteria (SAE J1979 protocol) to perform leak check, including compliance with the provisions of 40 CFR 86.1806-17(b)(2) (OBD monitoring requirements to determine the miles driven since the last successful OBD leak check was performed;

3.5.9 Tier 3 lean-best torque/fuel enrichment requirements outlined in 86.1844-01(d)(11)(iii) and 86.1811-17(d): Acknowledge that you are aware of these requirements and that the method which your vehicles will use to comply with these requirements will be documented in your Part 1 application.

3.5.10 Any other Tier 3 questions you have or issues you would like to cover.

- 3.6 Compliance with Tier 3 AB&T (Credit) Provisions – Provide a summary of your compliance with Tier 3 AB&T (Credit/Debit) requirements for the 2015 and later model years, for sections 3.6.1 to 3.6.8 below. Indicate whether you used the EPA Tier 3 AB&T templates available at <https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-control-air-pollution-motor-vehicles-tier-3> to calculate your credits/debits outlined in sections 3.6.3 to 3.6.8 (below). Please include a brief overview of:
- actual credits/debits as reported in your final Tier 3 Annual AB&T Report which is due to EPA on May 1 of the calendar year following the end of the model year, ref. 40 CFR 86.1862-04(c);
 - projected Tier 3 credit/debits for the model years up to and including the upcoming model year (as applicable);
 - if an averaging set has (or is projected to have) a net debit for any model year, provide your plan of how the debit would be paid off within the three model years after the model year the debit was accumulated, ref. 40 CFR 86.1860-17(e)(3); and
 - a summary and the dates of any Tier 3 and Cold NMHC credit trades or transfers.

3.6.1 Light-Duty Vehicle Early MY 2015-2017 FTP (NMOG + NO_x) Credits per 86.1811-17(b)(10) - Provide a summary of your early credits earned under the provisions of 40 CFR 86.1811-17(b)(10). See the EPA Calculator for MY 2015-2017 Early Tier 3 Credits at <https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-control-air-pollution-motor-vehicles-tier-3#compliance>.

3.6.2 Light-Duty Vehicle Early MY 2015-2017 Credits for FTP (NMOG + NO_x) and SFTP (Composite NMOG + NO_x); ref. 86.1811-17(b)(11) - Provide a summary of your early FTP and SFTP credits earned under the provisions of 40 CFR 86.1811-17(b)(11).

3.6.3 Light-Duty Vehicle MY 2017 and later FTP (NMOG + NO_x) credits/debits - Provide a summary of your FTP credits/debits earned up to and including the upcoming model year under the provisions of 40 CFR 86.1811-17(b)(4) and (b)(8)(i) for the following categories of vehicles:

- LDV/LDT1 vehicles;
- LDT2/HLDT/MDPV vehicles.

- 3.6.4 Light-Duty Vehicle MY 2017 and later SFTP (Composite NMOG + NO_x) credits/debits - Provide a summary of your SFTP credits/debits earned up to and including the upcoming model year under the provisions of 40 CFR 86.1811-17(b)(5) and (b)(8)(ii) for the following category of vehicles:
- LDV/LDT/MDPV vehicles.¹
- 3.6.5 Heavy-Duty Vehicle Early MY 2016-2017 FTP (NMOG + NO_x) credits/debits - Provide a summary of your FTP credits/debits earned under the provisions of 40 CFR 86.1816-18(b)(7)(i) and (b)(11) for the following categories of vehicles:
- HDV Class 2b vehicles;
 - HDV Class 3 vehicles.
- 3.6.6 Heavy-Duty Vehicle MY 2018 and later FTP (NMOG + NO_x) credits/debits - Provide a summary of your FTP credits/debits earned up to and including the upcoming model year under the provisions of 40 CFR 86.1816-18(b)(4) and (b)(7)(i) for the following categories of vehicles:
- HDV Class 2b vehicles;
 - HDV Class 3 vehicles.
- 3.6.7 Light-Duty and Heavy-Duty Vehicle MY 2017 and later Tier 3 Evaporative (diurnal plus hot soak) Credits/Debits – Provide a summary of your fleet average evaporative credits for gasoline-fueled, flexible-fueled and multi-fueled vehicles earned up to and including the upcoming model year under the provisions of 40 CFR 86.1813-17(a)(3), 86.1861-17(b)(1)(iv) and (b)(2) for the following categories of vehicles:
- LDV/LDT1 vehicles;
 - LDT2 vehicles;
 - HLDT vehicles;
 - HDV vehicles (including Class 2b, 3, 4, 5, 6, 7 and 8 vehicles).
- 3.6.8 Light-Duty Vehicle Cold NMHC MY 2010 (2012 for HLDT) and later Credits/Debits – Provide a summary of your fleet average Cold NMHC credits/debits earned up to and including the upcoming model year under the provisions of 40 CFR 86.1864-10(o) for the following categories of vehicles:
- LDV/LLDT vehicles;
 - HLDT/MDPV vehicles.
- 3.7 Describe any plans to certify alternative fueled vehicles, diesel vehicles, conventional hybrid vehicles, electric vehicles (EVs), plug-in hybrid electric vehicles (PHEVs), fuel cell vehicles, and new technology (e.g., 48-volt battery systems) for the upcoming two model years. Describe any special testing methods that will be employed.
- 3.8 Do you have any new ORVR technologies that will require an ORVR safety review, ref. EPA Guidance letter CCD-05-03, February 15, 2005. If so, please provide a brief description of the ORVR technology and the vehicles using the technology.
- 3.9 Do you have any OBD issues? Do you have any Test Groups that you do not intend

¹Note that HLDT and MDPVs are normally required to meet Tier 3 SFTP standards starting with the 2018 model year.

to obtain California OBD approval?²

- 3.10 Please provide an overview of the laboratory equipment (that represent a significant change or is unique for the upcoming model year certification program) which will be used to measure exhaust and evaporative emissions.

4. Fuel Economy Issues

- 4.1 Discuss any fuel economy labeling issues.

4.1.1 EV Labels - Provide an overview of the method(s) used to calculate FE Label values for your EVs, e.g. SAE J1634 single cycle, multicycle and/or 5-cycle test procedure. We encourage manufacturers to use the EPA generic EV FE Label calculator, available from your EPA certification representative.

4.1.2 PHEV Labels – Discuss any PHEV labeling issues. We encourage manufacturers to use the current version of EPA’s PHEV calculator (available from your EPA certification representative) to determine FE Label, CAFE and GHG values which you will need to enter into EPA’s EV-CIS (formerly Verify) database.

- 4.2 Discuss any CAFE issues.

4.2.1 Provide an estimate of your CAFE compliance levels and CAFE standards for the upcoming model year for Import Passenger Vehicles, Domestic Passenger Vehicles and Light Trucks.³

4.2.2 Outline any CAFE credit purchases or sales to other manufacturers since the last certification preview meeting.

- 4.3 Provide an estimate of your Heavy-Duty Vehicle Class 2b/3 Corporate Average Fuel Consumption (CAFC) compliance level and the applicable standard for the upcoming model year.

- 4.4 For vehicles equipped with select-shift or multimode transmissions (not manual transmissions), briefly discuss the results of any surveys of which you conducted since your last certification preview meeting and which you intend to conduct for the upcoming model year; ref. EPA Guidance letter CISC-09-19, December 3, 2009.

5. Greenhouse Gas (GHG) Issues and Pre-Model Year Report

We request that (outside of this meeting) manufacturers provide written light-duty and heavy-duty class 2b/3 GHG pre-model year reports to your EPA team member and enter a copy in EPA’s EV-CIS (formerly Verify) document module. It is not necessary for manufacturers to discuss the details of the pre-model year report in this meeting.

- 5.1 Light-Duty Overall GHG Credit Status - Provide a brief overview of your overall GHG CREE compliance status for both cars and light trucks which shows the actual and projected GHG credit/debit balance by model year beginning with MY 2009 through the end of the upcoming model year.

² Note that vehicles beginning with 2017 model year, EPA adopted California OBD requirements for light-duty and heavy-duty class 2b/3 vehicles. For Federal-only and 50-State test groups, EPA requires CARB approval of the OBD system prior to issuing an EPA certificate.

³ Alternately, you may provide the CAFE values from your CAFE pre-model year report for the current model year (as required for NHTSA, ref. 49 CFR 537.5 and 537.7) with your estimate of how the CAFE standards and fleet average mpg values will change for the upcoming model year for each compliance category (Import Passenger Vehicles, Domestic Passenger Vehicles and Light Trucks).

- 5.2 Heavy Duty Class 2b/3 Overall GHG Credit Status - Provide a brief overview of your overall GHG CO₂ compliance status which shows the actual and projected credit/debit balance by model year beginning with MY2013 through the end of the upcoming model year.
- 5.3 Light-Duty and Heavy Duty Class 2b/3 GHG Deficits – If your light-duty or heavy duty 2b/3 Pre-Model Year Report for the upcoming year is expected to project a deficit, provide a plan of how the deficit will be eliminated by the end of the third model year after model year when the initial deficit occurred; ref. 40 CFR 600.514-12(b)(2).

6. IUVP, IUCP, In-use Performance and Compliance Programs

Alternately, you may provide the IUVP, IUCP and In-use Performance and Compliance Program information (outlined in this section) and the durability information outlined in Section 3.4 in a separate meeting.

- 6.1 Provide an overview of the in-use verification program (IUVP) testing and any in-use confirmatory program (IUCP) testing conducted in the past year, including the total number of low mileage and high mileage IUVP/IUCP vehicles tested in the past year. Please discuss your remedy or testing plans for vehicles which qualified for IUCP testing in the past year but have not yet started IUCP testing.
 - 6.1.1 Are any of your low and high mileage IUVP test programs in danger of not meeting the required completion dates (one year and five years after production ended, respectively), ref 40 CFR 1845-04(b)(4) and (c)(4)? If so, please explain.
 - 6.1.2 If any vehicle exceeded the in-use emission standard for any constituent (including GHG emissions), please provide a summary or a graph of all the IUVP/IUCP testing conducted for that test group or evaporative family.
 - 6.1.3 Provide information concerning your upcoming IUVP programs, e.g. in the 2020 model year compliance program meeting, manufacturers would provide information for the 2019 calendar year IUVP programs (that cover 2014 model year high mileage vehicles and 2018 model year low mileage vehicles).
 - 6.1.4 Provide a list of small volume test groups which will use small volume sampling for the IUVP program which will be conducted in the upcoming calendar year.
- 6.2 Describe who is responsible for submitting these reports to EPA and their time line for doing so.
- 6.3 Explain the methods used to track emission related component failures that occur in the field. Describe the method you use to determine that an in-use emissions related defect exists. Describe how you ensure that EPA is notified of a defect within fifteen (15) working days after an emission component has twenty-five (25) defects for the same model year vehicle(s) and/or engines(s).⁴
- 6.4 Discuss the criteria used to determine whether a service campaign or a voluntary emission-related recall (VERR) will be initiated; ref. EPA Guidance Letter CD-2015-07, April 6, 2015.⁵

⁴ If you have provided this information to EPA in a previous document (e.g. in a previous compliance preview meeting document), you may reference that document and discuss any changes in the process that have occurred since the date of that document.

⁵ Ibid

7. Manufacturer-Conducted Coastdown Self-Audit Programs

- 7.1 Provide an overview of any manufacturer coastdown self-audit programs (conducted on your production vehicles and in-use vehicles) which you conducted in the past year, and which you intend to conduct in the coming year. Please describe the vehicles tested (or planned for testing) and if possible, the results of any testing that has been completed; ref. EPA guidance letter CD-2015-04, February 23, 2015.

8. Manufacturer Testing Using On-Board Vehicle Emission Analyzers

- 8.1 Provide a brief overview of any manufacturer self-audit testing conducted on your production vehicles (e.g. at the assembly line) and on your in-use vehicles using on-board emission analyzers, remote sensing emission analyzers, etc. which you conducted in the past year (or which you intend to conduct in the coming year). Please describe the vehicles tested (or planned for testing) and if possible, the results of any testing that has been completed. Note that we are only interested in the testing performed on vehicles which you produce, not testing performed on vehicles produced by other manufacturers.

9. Other Issues

- 9.1 Discuss any other pertinent information not previously outlined above that may be related to the certification process, in-use compliance and fuel economy.

**ENCLOSURE 2
to CD-10-18**

EPA Light-Duty & Heavy-Duty Chassis Dynamometer Mfr. Test Request Projections

 Model Year

Date	Certification (FTP, Hwy, US06, SC03, Cold FTP)	Certification (2-D Evap)	Fuel Economy (specify FTP & Hwy only or 5- cycle)	Diesel & Alt Fuel Vehicles (specify fuel)	Electric Vehicles	Plug-in Hybrid Vehicles
Oct 16-31						
Nov 1-15						
Nov 16-30						
Dec 1-15						
Dec 16-31						
Jan 1-15						
Jan 16-31						
Feb 1-15						
Feb 16-28						
March 1-15						
March 16-31						
April 1-15						
April 16-30						
May 1-15						
May 16-31						
June 1-15						
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Dec 16-31						